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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,563	03/23/2001	Shunpei Yamazaki	SEL 248	9704

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EXAMINER

MACCHIAROLO, PETER J

ART UNIT PAPER NUMBER

2879

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/815,563	Applicant(s) YAMAZAKI ET AL.	
	Examiner Peter J Macchiarolo	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,13-16,18 and 30-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,13-16,18 and 30-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application on 11/01/2004. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.14. Applicant's submission filed on 10/04/2004 has been entered. However, pending claims 1-4, 6, 13-16, 18, 30-58 are not allowable as explained below. An action on the RCE follows.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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2. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (USPN 6366025: "Yamada").

3. Regarding claim 1, Yamada shows in figure 6b, a light emitting apparatus having at least one light emitting element over an insulator (substrate not labeled), the light emitting element comprising: an anode (161) having at least a first edge and a second edge formed over said insulator, at least one wiring (via connecting anode and 43s) interposed between the insulator and the anode wherein the wiring is formed in contact with the first edge of the anode; an insulating film (167) covering at least the first and the second edges of the anode; a cathode (166) formed over said insulating film; and a luminescent material (163) interposed between said anode and said cathode, and between said cathode and said insulating film.

4. Regarding claims 2, 4, and 6, Yamada discloses the wiring and anode are formed of an ITO metal film,¹ and an electric device (TFT) uses the apparatus.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 13-16, 18, 30-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada.

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6. Regarding claim 3, Yamada is silent to the wiring being formed from the materials from the recited elements.

7. However, it would have been obvious to one having ordinary skill in the art that the time the invention was made to use a one of the recited materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, one would arrive at this configuration for a variety of reasons, including material availability and manufacturing processes with sensitive requirements.

8. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the wiring from platinum, palladium, nickel, gold, aluminum, copper, silver, tantalum, tungsten, molybdenum or titanium.

9. Regarding claim 13, Yamada shows in figures 6b and 5, a light emitting apparatus having at least one light emitting element over an insulator (substrate not labeled), the light emitting element comprising: an anode (161) having at least a first edge (fig. 5 reproduced below) and a second edge formed over said insulator, the anode extending in a first direction wherein each of the first edge and the second edge of the anode extends along the first direction, a first wiring (via connecting anode and 43s) interposed between the insulator and the anode wherein the first wiring is formed in contact with the first edge of the anode; an insulating film (167) covering at least the first and the second edges of the anode; a cathode (166) formed over said insulating

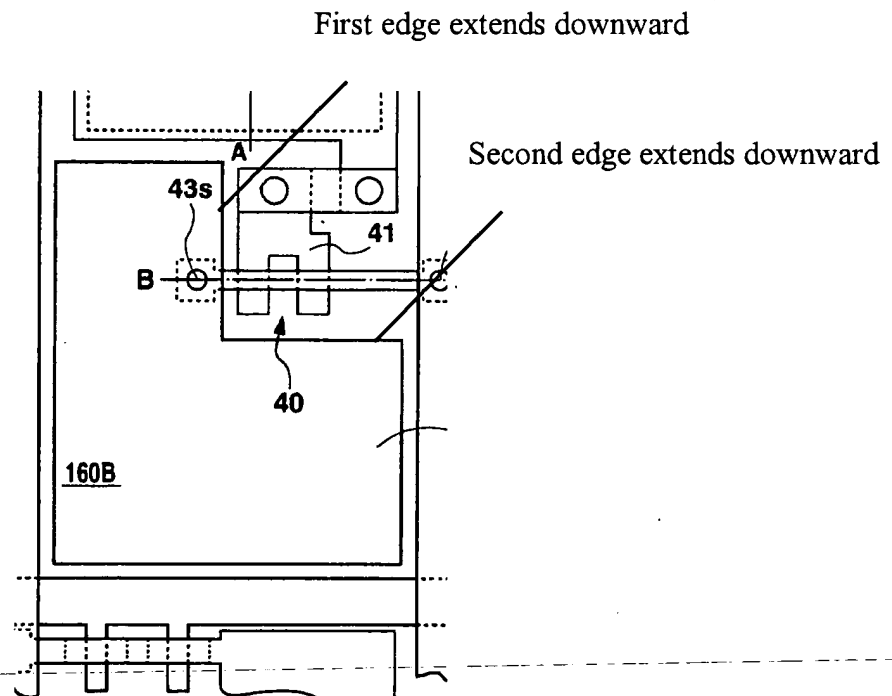
¹ Yamada, col. 7, ll. 54-56.

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film; and a luminescent material (163) interposed between said anode and said cathode, and between said cathode and said insulating film.

10. Although Yamada is silent to a second wiring extending from the second edge of the anode in the first direction, this is an obvious modification, since this will reduce the overall resistance of the anode, allowing for reduced voltage consumption.

11. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct Yamada's anode with a second wiring extending from the second edge of the anode in the first direction, to allow for reduced voltage consumption.



12. Regarding claims 14, 15, 16, and 18 the limitations have been discussed supra at numbered paragraphs 4, and 6-11.

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13. Regarding claims 30, 32, although Yamada is silent to the wiring being different in material from the anode, it would have been obvious to one having ordinary skill in the art that the time the invention was made to use a different material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, one would arrive at this configuration for a variety of reasons, including material availability and manufacturing and operating processes with sensitive requirements.

14. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the wiring from a different material.

15. Regarding claims 31, 33, although Yamada is silent to the wiring being made from a material lower in resistance than that of the anode, this is a well-known modification to lower the overall resistance of the anode to limit power consumption and electrification time.

16. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the wiring of a different material which is lower in resistance than that of the anode to limit power consumption and electrification time.

17. Regarding claim 34, similar limitations have been discussed supra at numbered paragraphs 9-11. Yamada further shows the anode is electrically connected to a first driver circuit (TFT 43).

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18. Although Yamada is silent to a driving circuit being attached to the cathode, this is an obvious modification, since this configuration is needed for proper operation of the device.

19. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct a driving circuit to the cathode so the device operates properly.

20. The Examiner notes that, "mounted by a COG system" is an intended use type limitation. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

21. Regarding claims 35, 36, and 37, the limitations therein have been discussed supra.

22. Regarding claim 38, Yamada shows in figures 6b, a plurality of banks (17) arranged so as to be orthogonal to the anode.

23. Regarding claims 39 and 44, similar limitations therein have been discussed supra.

Yamada is silent to the anode and cathode being connected to a first and second stick drivers by an anisotropic electrical connection or metal wire.

24. However, one of ordinary skill in the art would arrive at connecting first and second stick drivers to the anode and cathode through anisotropic electrically conductive material, or by a

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wire, since it is known that a first and second stick driver being connected to an anode and cathode will properly drive the device, and an anisotropic electrical connection can be easily formed. Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

25. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Yamada, including connecting first and second stick drivers to the anode and cathode through anisotropic electrically conductive material or by a metal wire to allow for easy manufacturing and proper operation.

26. Regarding claims 40-43, and 45-48, the limitations therein have been discussed supra.

27. Regarding claim 49, the rejection is the same as for claim 13, discussed supra at numbered paragraphs 9-11. Connecting the second wiring in contact with the second edge of the anode is an obvious configuration. The point of contact is arbitrary and a matter of design choice, and will effectively lower the resistance of the overall anode no matter where it is attached.

28. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the anode of Yamada with a second wiring forming in contact with the second edge of the anode to reduce power consumption.

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29. Regarding claims 50-54, the limitations therein have been discussed supra.

30. Regarding claims 55-58, Yamada discloses the luminescent material is interposed between the anode and the cathode, and between the cathode and the insulating film.

Response to Arguments

31. Applicant's arguments filed 10/04/2004 have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

33. USPN 6133581 issued to Terao et al on October 17, 2000 is evidence that using wirings of lower resistance on anodes reduces the overall resistance of the anode, allowing for reduced voltage consumption and electrification time.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375.


The examiner can normally be reached on 8:30 - 5:00, M-F.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


pjm


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Primary Examiner
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